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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,589	04/14/2004	Jere Wade	251613US8X	6214

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EXAMINER

LE, THANH TAM T

ART UNIT PAPER NUMBER

2839

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/823,589

Applicant(s)

WADE ET AL.

Examiner

Thanh-Tam T. Le

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10 and 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The RCE filed 07/07/06 is acknowledged.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-10 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata et al. (6,007,355) in view of Obata et al. (5,310,356).

Shibata, figures 4 and 5 show a rotary connector comprising:

- a first part (not labeled);
- a second part (not labeled) rotationally coupled to the first part to form an interior of the rotary connector;
- a first flat cable (4) having a single ribbon conductor (4a);
- a second flat cable (5) having multiple conductor wires (not labeled), wherein the first and second flat cables are housed within the interior of the rotary connector and the second flat cable extend in a circumferential direction about an axis of rotation of the rotary connector; and
- an over current protection device (10) housed within an integral space of the rotary connector and configured to provide over current protection for the first flat cable.

Shibata et al. disclose the claimed invention as described above except for the first flat cable having a relatively large width and the first flat cable extends in a circumferential direction about an axis of rotation of the rotary connector.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to provide Shibata et al. to have the first flat cable having a relatively large width, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955) for easier connection.

Obata et al., figure 4 shows a transmission device having first flat cable (21) extend in a circumferential direction about an axis of rotation of a rotary connector. It would have been obvious to one with ordinary skill in the art at the time the invention was made to provide Shibata et al. to have the flat cable, as taught by Obata et al., in order to securely preventing troubles caused by the slack in the flat cable (Obata et al.'s abstract).

Regarding claim 2, Shibata et al. disclose the over current protection device consists of a single fuse (15) configured to provide over current protection for the first flat cable.

Regarding claim 4, Shibata et al. disclose the integral space comprising a recess (not labeled) formed in the interior of the rotary connector.

Regarding claim 5, Shibata et al. disclose the recess is separate from an annular space in the interior used to house the first and second flat cables.

Art Unit: 2839

Regarding claim 6, Shibata et al. disclose the over current protection device snaps into the recess.

Regarding claim 7, Shibata et al. disclose a bus bar 11b1 (figure 5) coupled to the first and second flat cables, the over current protection being integrated with the bus bar.

Regarding claim 8, Shibata et al. disclose the over current protection consists of a single fuse configured to provide over current protection for the first flat cable.

Regarding claim 9, Shibata et al., figures 4 and 5 show the bus bar comprising a first conductor (11b1) electrically connected to the electrical cable and a second conductor (11b3) electrically insulated from the first conductor and configured to be connected to a power input to the rotary connector, and wherein the over current protection device electrically connects the first and second conductors.

Regarding claim 10, the over current protection device comprising a blade fuse (column 6, lines 37-45), the rotary connector further comprising a intermediate terminals (5) connected to the first and second conductors and configured to electrically connect with the blade fuse.

Regarding claim 22, Shibata et al. disclose the first flat cable provide with over current protection is the first flat cable, which is configured to provide input and output high current to the rotary connector.

Regarding claim 23, it is noted that Obata et al. show the first and second flat cables comprising an input cable length and an output cable length.

Regarding claim 24, it is noted that Obata et al. show the first flat cable comprising a plurality of flat cables.

Response to Arguments

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is 571-272-2094. The examiner can normally be reached on 7:30-5:00.

5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2839

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh-Tam T. Le
Primary Examiner
Art Unit 2839

TL., 9/20/06.